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**FACSIMILE COVER SHEET**

December 12, 2005

Receiver: U.S. Patent and Trademark Office

TEL #:

FAX #: (571) 273-8300

Sender: Susan W. Xu for Ramin Mahboubian

Our Ref. No.: SUN1P270

Re: Patent No.: 6,971,097 B1 (Serial No.: 09/591,172)

Pages Including Cover Sheet(s): (06)

**MESSAGE:**

Sir:

Please deliver the attached Request for Reconsideration of Patent Term Adjustment and the supporting documents to Mail Stop Petitions.

**CONFIDENTIALITY NOTE**

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DEC 12 2005

PATENT

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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In re Patent of: David Wallman

Patent No.: 6,971,097 B1

Issued: November 29, 2005

Title: METHOD AND APPARATUS FOR  
IMPLEMENTING CONCURRENTLY  
RUNNING JOBS ON AN EXTENDED  
VIRTUAL MACHINE USING DIFFERENT  
HEAPS MANAGERS

Attorney Docket No.: SUN1P270/P4566

Examiner: SHAH, NILESH R.

Group: 2127

Confirmation No.: 3517

**CERTIFICATE OF FACSIMILE TRANSMISSION**I hereby certify that this correspondence is being transmitted  
by facsimile to fax number 571-273-8300 of the U.S. Patent  
and Trademark Office on December 12, 2005.Signed: 

Susan W. Xu

**REQUEST FOR RECONSIDERATION OF  
PATENT TERM ADJUSTMENT UNDER 37 CFR 1.705**Mail Stop Petitions  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

In response to the Issue Notification of November 9, 2005, and the November 29, 2005 issuance of the captioned patent ("Patent"), Applicant respectfully requests reconsideration of the period for Patent Term Adjustment ("PTA") in accordance with 37 C.F.R. § 1.705(d). Appropriate compliance with 37 C.F.R. §§ 1.705(b)(1) and (b)(2) is submitted herewith.

***Statement of Facts, as Required by §1.705(b)(2)*****(i) Correct Patent Term Adjustment and Basis for Same**

Attached hereto is a copy of the front page of the Patent and a printout of the Patent Application Information Retrieval ("PAIR") page calculating the PTA history for this Patent. The total PTA as issued and as calculated by PAIR is 458 days, which is adjusted from the

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original figure of 0 day(s) as established by the Notice of Allowance in this case. This difference of 458 days appears to be attributed to the recalculation of PAIR for both PTO and Applicant delays. However there was a miscalculation of the USPTO delays. This Patent Application was filed on June 9, 2000 and the first Non-Final Rejection was mailed out on November 10, 2003. There was a delay of 823 days on the PTO side, deducting the 14 months for PTO to take an action. Accordingly, the proper PTA for this patent should be at least 840 days (Total PTO delays of 863 days (823+40) minus total Applicant delays of 23 days). Applicant respectfully submits that no other basis for "Applicant Delay" exists.

(ii) Relevant Dates

June 9, 2000: Application was filed with PTO.

November 10, 2003: First non-final rejection mailed from PTO

(iii) Terminal Disclaimer


This Patent is not subject to a terminal disclaimer.

(iv) Statement of Relevant Circumstances

There are no circumstances constituting a failure to engage in reasonable efforts to conclude processing or examination of this case as set forth in § 1.704.

Applicant respectfully requests that the PTA for this Patent be reconsidered. The Commissioner is hereby authorized to charge the appropriate fee for this Request for Reconsideration under 37 C.F.R. § 1.705(b)(1) to Deposit Account No. 50-0388, referencing Docket No. SUN1P270. Should any issues remain with respect to this matter, it is respectfully requested that the undersigned attorney be contacted at the telephone number listed below.

Respectfully Submitted,  
BEYER WEAVER & THOMAS, LLP

  
R. Mahboubian  
Reg. No. 44,890

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Oakland, CA 94612-0250  
(650) 961-8300

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(12) **United States Patent**  
**Wallman**

(10) Patent No.: **US 6,971,097 B1**  
 (45) Date of Patent: **Nov. 29, 2005**

(54) **METHOD AND APPARATUS FOR IMPLEMENTING CONCURRENTLY RUNNING JOBS ON AN EXTENDED VIRTUAL MACHINE USING DIFFERENT HEAPS MANAGERS**

(75) Inventor: **David Wallman, Sunnyvale, CA (US)**

(73) Assignee: **Sun Microsystems, Inc., Santa Clara, CA (US)**

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 458 days.

(21) Appl. No.: **09/591,172**

(22) Filed: **Jun. 9, 2000**

(51) Int. Cl.<sup>7</sup> ..... **G06F 9/46**

(52) U.S. Cl. .... **718/101; 718/102**

(58) Field of Search ..... **709/100, 101; 718/100-102**

(56) **References Cited**

#### U.S. PATENT DOCUMENTS

5,175,679 A \* 12/1992 Allen et al. .... 700/28  
 5,561,786 A \* 10/1996 Morse ..... 711/170  
 5,745,703 A \* 4/1998 Cejtin et al. .... 709/238  
 6,081,665 A \* 6/2000 Nilsen et al. .... 717/116

#### OTHER PUBLICATIONS

Back et al., "Java Operating Systems: Design and Implementation," Aug., 1998, Technical Report UUCS-98-015.

Back et al., "Processes in KaffeOS: Isolation, Resource Management, and Sharing in Java," Apr., 2000, Technical Report UUCS-00-010.

David Raila, "Getting Started with Choices," Sep. 15, 1994.

Ford et al., "The Flux OSKit: A Substrate for Kernel and Language Research," Oct. 1997.

Seligmann et al., "Incremental Mature Garbage Collection Using the Train Algorithm," Mar. 26, 1995.

Berlin et al., "JavaOS Internals," JavaOS Internals, Apr. 4, 1997.

\* cited by examiner

Primary Examiner—Meng-Ai T. An

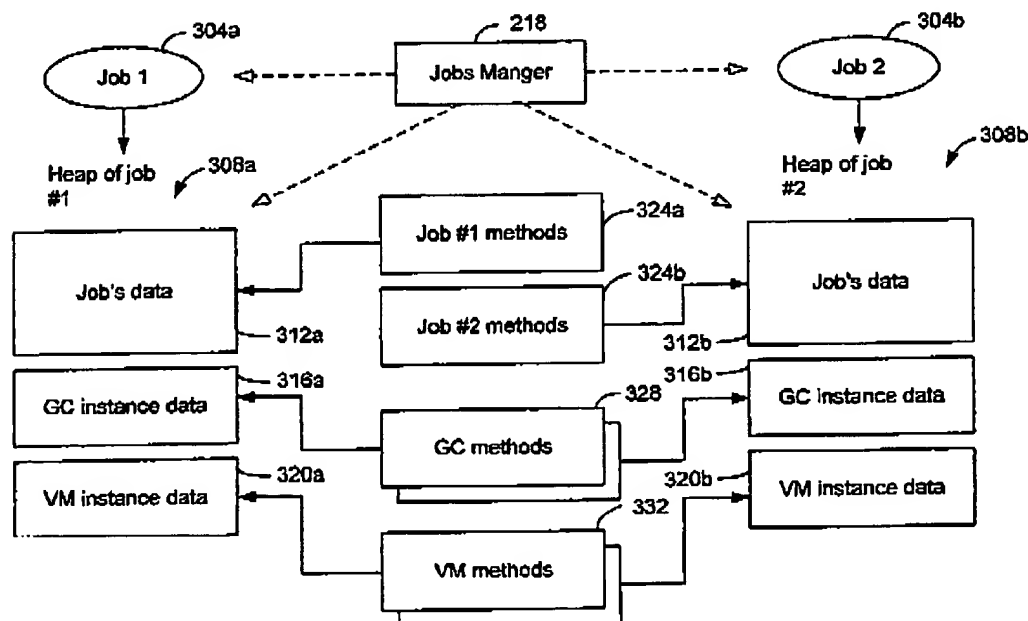
Assistant Examiner—Nilesh Shah

(74) Attorney, Agent, or Firm—Beyer Weaver & Thomas, LLP

(57) **ABSTRACT**

Methods and apparatus for implementing a virtual machine that supports the execution of more than one application per virtual machine process are described. According to one aspect of the present invention, a computing system includes a processor, a memory, and a virtual machine that is in communication with the processor. The virtual machine is arranged to enable one or more jobs to run on the virtual machine, and is further arranged to create a heap in the memory for each job that runs on the virtual machine. In one embodiment, the virtual machine includes a jobs manager, a class manager, and a heap manager. In such an embodiment, the heap manager manages substantially all heaps in the memory that are created by the virtual machine.

22 Claims, 7 Drawing Sheets





United States Patent and Trademark Office

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**PATENT APPLICATION INFORMATION RETRIEVAL**



Patent Term Adjustment (PTA) for publication number: 09/591,172			
			Days
Filing or 371(c) Date:	06-09-2000	USPTO Delay (PTO):	481
Issue Date of Patent:	11-29-2005	Three Years:	-
Pre-Issue Petitions (days):	+0	Applicant Delay (APPL):	23
Post-Issue Petitions (days):	+0	Total PTA:	458
USPTO Adjustment (days):	+0	Explanation of Calculations	

Search Options

Assignments
Continuity Data
Display References
Image File Wrapper
File History
Maintenance Fees - Retrieve fees to pay
Maintenance Fees - View payment windows
Maintenance Statement - View 04 year payment window
Maintenance Statement - View 08 year payment window
Maintenance Statement - View 12 year payment window
Published Documents

Maintenance Fees Available: Mon-Fri 5:30 AM to Midnight, Sat-Sun-Hol. 7:30 AM to 8:00 PM E.T.

Patent Term Adjustment History			
Date	Contents Description	PTO (days)	APPL (days)
11-09-2005	PTA 36 Months	441	
11-29-2005	Patent Issue Date Used in PTA Calculation	40	
10-17-2005	Dispatch to FDC	↑	
10-02-2005	Application Is Considered Ready for Issue	↑	
06-20-2005	Issue Fee Payment Verified	↑	2
06-20-2005	Issue Fee Payment Received		↑
03-18-2005	Mail Notice of Allowance		↑
03-17-2005	Notice of Allowance Data Verification Completed		
03-17-2005	Case Docketed to Examiner in GAU		
02-12-2005	IFW TSS Processing by Tech Center Complete		
02-12-2005	Date Forwarded to Examiner		
12-20-2004	Response after Non-Final Action		
12-20-2004	Workflow incoming amendment IFW		
10-04-2004	Mail Non-Final Rejection		
09-30-2004	Non-Final Rejection		
09-14-2004	Date Forwarded to Examiner		

08-23-2004	Request for Continued Examination (RCE)		18
09-14-2004	DISPOSAL FOR A RCE/CPA/129 (express abandonment if CPA)		↑
08-23-2004	Request for Extension of Time - Granted		↑
09-08-2004	Mail Advisory Action (PTOL - 303)		↑
09-07-2004	Advisory Action (PTOL-303)		↑
08-23-2004	Workflow incoming amendment IFW		↑
08-23-2004	Workflow - Request for RCE - Begin		↑
08-10-2004	Date Forwarded to Examiner		↑
07-19-2004	Amendment after Final Rejection		↑
08-06-2004	Mail Examiner Interview Summary (PTOL - 413)		↑
08-03-2004	Examiner Interview Summary Record (PTOL - 413)		↑
07-19-2004	Workflow incoming amendment IFW		↑
05-05-2004	Mail Final Rejection (PTOL - 326)		↑
06-03-2004	Final Rejection		
02-27-2004	Date Forwarded to Examiner		
02-13-2004	Response after Non-Final Action		3
02-13-2004	Request for Extension of Time - Granted		↑
11-28-2003	Miscellaneous Incoming Letter		↑
11-10-2003	Mail Non-Final Rejection		↑
10-30-2003	Non-Final Rejection		
09-08-2003	Case Docketed to Examiner in GAU		
06-03-2003	Case Docketed to Examiner in GAU		
04-23-2003	Case Docketed to Examiner in GAU		
01-21-2003	Case Docketed to Examiner in GAU		
09-23-2002	Information Disclosure Statement (IDS) Filed		
09-24-2002	Case Docketed to Examiner in GAU		
05-21-2002	Case Docketed to Examiner in GAU		
08-31-2001	Mail Miscellaneous Communication to Applicant		
08-31-2001	Miscellaneous Communication to Applicant - No Action Count		
10-06-2000	Case Docketed to Examiner in GAU		
08-18-2000	Case Docketed to Examiner in GAU		
08-10-2000	Application Dispatched from OIPE		
08-10-2000	Correspondence Address Change		
07-05-2000	IFW Scan & PACR Auto Security Review		
06-09-2000	Initial Exam Team nn		